

MEETING MINUTES
LIGNITE RESEARCH COUNCIL
May 20, 2008
Best Western Doublewood Inn, Bismarck, ND

MEMBERS (or their authorized alternates) PRESENT:

Fred Anderson, ND Geological Survey
Steve Benson, Energy & Environmental Research Center
Mike Briggs, The Falkirk Mining Company
Randel Christmann, ND Senate
Doug Deverne, SaskPower
Tom Durham, Westmoreland Coal Company
Bob Fagerstrom, Dakota Gasification Company
Layton Freborg, ND Senate
Joe Friedlander, The Coteau Properties Company
Paul Govig, North Dakota Department of Commerce
Mark Hager, International Brotherhood of Electrical Workers
Carlyle Hillstrom, North Dakota Farm Bureau
Mike Hummel, BNI Coal, Ltd.
Luther Kvernen, Minnkota Power Cooperative, Inc.
Terry O'Clair, North Dakota Department of Health
John Phillips, ND Coal Conversion Counties Association
Al Rudeck, Minnesota Power
Jenny Tennant, U. S. Department of Energy – National Energy Technology Laboratory
Mark Thompson, Basin Electric Power Cooperative
Rich Voss, Great Northern Power Development
John Weeda, Great River Energy
Alan Welte, Montana-Dakota Utilities Co.

OTHERS PRESENT:

Dave Allard, Lignite Energy Council
Jeff Burgess, Lignite Research Council
Karlene Fine, North Dakota Industrial Commission
Vicki Gilmore, Lignite Energy Council
Mike Jones, Ph.D. – Energy & Environmental Research Center
Brandon Pavlish, Energy & Environmental Research Center
Sandi Tabor, ND Transmission Authority

In the absence of Lignite Research Council (LRC) chairman John Dwyer, Senator Randel Christmann called the LRC meeting to order at 12:08 p.m. (Central Time) May 20, 2008, at the Best Western Doublewood Inn, Bismarck, ND.

Approval of January 24, 2008 LRC Meeting Minutes:

Christmann asked for a motion to approve the minutes of the January 24, 2008 LRC meeting. Joe Friedlander so moved; seconded by Tom Durham. Motion carried.

Program Financial Summary:

Karlene Fine, executive director and secretary of the North Dakota Industrial Commission (NDIC), briefly summarized the Lignite Research Program's (Program) \$3,725,000 approved annual budget allocations (May 2006).

Available funding for the 2007-2009 biennium (as of 5/20/08) is \$270,861 for administration of the Program; \$1,000,000 for non-matching feasibility studies (Lignite Energy Council Lignite Vision 21 Program, transmission, litigation, etc.); \$1,144,581 for small research projects; \$0 for marketing projects; and \$253,683 for demonstration projects. (The demonstration projects' available funding does not include the commitment of \$5,502,276 over future biennia for the final phases of the Lignite Vision 21 Program projects: Coal-to-Liquids, and Spiritwood Energy projects. NDIC may borrow up to \$2 million to meet cash-flow needs).

Jeff Burgess, technical advisor for the NDIC and the LRC, summarized the Lignite Research, Development and Marketing Program (Program) financial information. From 1987 to present, there have been 126 small research projects (\$16.4 M from NDIC for the projects; \$98.4 M total project costs; \$1 in state funds to \$6 total investment); 19 demonstration projects excluding Lignite Vision 21 Program (LV21P) projects (\$18.5 M from NDIC for the projects; \$356 M total project costs; \$1 in state funds to \$19 total); and eight LV21P projects (\$22.2 M from NDIC; \$240 M total project costs).

He said that the current technical advisor activities involve 24 projects (\$29 M from NDIC for the projects; \$502 M total project costs). There is one marketing project (\$2.4 M from NDIC; \$4.8 M total project cost); 12 small research projects (\$4.5 M from NDIC; \$38 M total project costs); 11 demonstration projects (\$4.2 M for eight non-LV21P demonstration projects); \$228 M total project costs for the eight non-LV21P demonstration projects); \$19.3 M (for three LV21P demonstration projects); \$235 M total project costs for the three LV21P demonstration projects).

Project Updates:

Burgess gave a brief review of the 24 active projects as well as a quick review of the LV21P projects.

Grant Round LXIV (64) Applications:

Grant Round LXIV (64) Grant Application LRC-LXIV-A: "Coal Ash Behavior in Reducing Environments (CABRE) III"; Submitted by: Energy & Environmental Research Center (EERC); Project Manager: Steven A. Benson, Ph.D; Request for: \$150,000; Total Project Costs: \$2,401,174 (\$800,000 per year); Project Duration: Three Years:

Burgess said that with this project, EERC proposes to research the fuel ash-related problems that affect gasification performance and to provide more reliable evaluation tools for gasifier design engineers and operators to assess coal requirements and optimize operating conditions. Burgess said that the three technical peer reviewers gave the proposal an average weighted score of 187 out of 250 points. (The weighted scores were 178 out of 250 points from reviewer 08-1, 211 out of 250 points from reviewer 08-2 and 173 out of 250 points from reviewer 08-3). Technical peer reviewer 08-1 recommended that the project be funded; technical peer reviewer 08-2 recommended that funding may be considered; and technical peer reviewer 08-3 recommended that the project not be funded.

As technical advisor, Burgess' recommendation was that funding may be considered. He said that there is no lignite industry participation with respect to financial support. Subsequent to the peer reviewers' review and comments, Burgess said that he had been informed that industry participation (albeit not lignite industry) has been secured.

He said that the following contingencies should be considered: North Dakota lignite is to be included as a fuel in the test protocol/study; and confirmation of U.S. Department of Energy and industry matching funds are a prerequisite to receiving NDIC funds.

Burgess said that EERC is the conflict-of-interest party for proposal LRC-LXIV-A.

Steven Benson, Ph.D. of EERC gave a presentation in support of the proposal.

Grant Round LXIV (64) Grant Application LRC-LXIV-B: “Partnership for CO2 Capture”; Submitted by: Energy & Environmental Research Center (EERC); Project Manager: Brandon Pavlish; Request for: \$300,000; Total Project Costs: \$3,410,000; Project Duration: 16 Months:

Burgess said that with this project, EERC proposes to conduct pilot-scale demonstration testing of selected CO2 separation and capture technologies for fossil fuel- and biomass-fired systems. Technologies may include solvent scrubbing, oxygen-fired combustion and gas separation membranes. Burgess said that the three technical peer reviewers gave the proposal an average weighted score of 163 out of 250 points. (The weighted scores were 170 out of 250 points from reviewer 08-10, 162 out of 250 points from reviewer 08-11 and 157 out of 250 points from reviewer 08-12). Technical peer reviewer 08-10 recommended that the project be funded; technical peer reviewers 08-11 and 08-12 recommended that the project not be funded.

As technical advisor, Burgess' recommendation was that funding may be considered. He said that EERC did not have commitment and sufficient input from industry sponsors prior to its April 1, 2008 submittal of the proposal and subsequent peer review. In his meeting with the EERC team on May 9, 2008, Burgess said that EERC demonstrated support from the lignite industry as well as provided more detail regarding the test protocols. As technical advisor, Burgess said that is it his opinion that the EERC team has adequately addressed the peer reviewers' concerns. He said that the demonstration of cost-effective, environmentally sound capture and storage of CO2 is critical to the future of the lignite industry. It is necessary and appropriate for increased public-private investment in carbon capture and storage research, development, demonstration, and deployment of technologies in order to achieve greenhouse gas management objectives already being established, or being contemplated, by various governmental bodies. He said that the following contingencies should be considered: Testing shall include capture of CO2 from North Dakota lignite-fueled energy conversion systems; and confirmation of U.S. DOE and industry matching funds are a prerequisite to receiving NDIC funds.

Burgess said that the following entities are conflict-of-interest parties for the proposal: EERC, Minnesota Power, Basin Electric Power Cooperative and SaskPower. He noted the following update: Minnkota Power Cooperative, Inc., is no longer a conflict-of-interest party for this proposal.

Mike Jones, Ph.D. and Brandon Pavlish, both of EERC, gave presentations in support of proposal LRC-LXIV-B.

Ballot Results re: Grant Round LXIV (64) Proposals:

Christmann announced the results of the LRC's confidential ballots concerning recommendations for NDIC funding of the two Grant Round LXIV (64) proposals.

Confidential ballot results:

Grant Round LXIV (64) Grant Application LRC-LXIV-A: “Coal Ash Behavior in Reducing Environments (CABRE) III”; Submitted by: Energy & Environmental Research Center (EERC); Project Manager: Steven A. Benson, Ph.D; Request for: \$150,000; Total Project Costs: \$2,401,174 (\$800,000 per year); Project Duration: Three Years.

Fund: 15 votes. Do Not Fund: 7 votes.

Grant Round LXIV (64) Grant Application LRC-LXIV-B: ”Partnership for CO2 Capture”; Submitted by: Energy & Environmental Research Center (EERC); Project Manager: Brandon Pavlish; Request for: \$300,000; Total Project Costs: \$3,410,000; Project Duration: 16 Months.

Fund: 19 votes. **Do Not Fund**: 3 votes.

NDIC Meeting – May 22, 2008:

The LRC's recommendations concerning the Grant Round LXIV (64) requests will be considered by the NDIC when it meets on May 22, 2008.

Remaining Grant Application Deadline Date for 2008; Remaining LRC Meeting for 2008:

October 1st is the remaining grant application deadline date for 2008. The LRC’s next meeting is scheduled for 12:00 p.m. (Central Time) November 25, 2008, at the Best Western Doublewood Inn, Bismarck.

Adjournment

There being no further business, Christmann requested a motion to adjourn the LRC meeting. Mike Hummel so moved; seconded by Senator Layton Freborg. Motion carried. The meeting adjourned at 1:12 p.m. May 20, 2008.

Vicki Gilmore, Recording Secretary
